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ABSTRACT

This catalog was prepared for the Department of Vocational Career Development of Georgia State University as a supplementary manual to its recently developed catalog of courses. It is a survey of available literature on a wide variety of technical subjects formerly not included in traditional vocational or technical education in Georgia. Included in this catalog are capsule reviews of selected texts pertinent to the pilot high-technology program currently being implemented in Georgia. The topics in the catalog are grouped into the following 12 major categories: introduction to computers, digital electronics and technology, operating and database systems, programming languages and techniques, microcomputers and microprocessors, data communications, computer graphics, computer-aided design and manufacturing, robotics, controls and controllers, instrumentation, and advances in shop practice. Each entry consists of title, author, publisher, publication date, price, number of pages, and a short description of the text. A list of publishers and their addresses and telephone numbers completes the bibliography. (KC)

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HIGH TECHNOLOGY CURRICULUM

ANNOTATED BIBLIOGRAPHY OF SELECTED TEXTS

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HIGH TECHNOLOGY CURRICULUM PROJECT
VOCATIONAL AND CAREER DEVELOPMENT DEPARTMENT
GEORGIA STATE UNIVERSITY

Harmon R. Fowler, Chairman
Kenneth R. Allen, Project Director
J.D. Fowler, Project Director

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Introduction

How to use this guide

This Catalog of Selected Texts for High Technology Curriculum has been prepared for the Department of Vocational Career Development of Georgia State Univeristy as a supplementary manual to the recently developed Catalog of Courses. It represents a survey of available literature on a wide range of subjects hitherto not included in traditional vocational or technical education in Georgia. As this volume has been prepared for field review only, it is not the author's intent to recommend any specific text nor proscribe any specific text from any course of use or study.

What is included

Included in this catalog are "capsule reviews" of selected texts pertinent to the pilot high technology program currently being implemented in the State of Georgia. These topics do not include those traditional areas of study such as machine tool operation or drafting techniques previously addressed by the schools nor do they include those areas not contained in the requisition for the guide. Grouped into twelve major categories, the books are listed within each in no particular order.

Author's intent

It is the author's intent to represent the range of text materials available to vocational-technical educators for classroom use at this time. It is not the author's intent to omit any particular publication from this list nor to include any inappropriate text on it. Publishers and educators are invited to submit to the author any additons or subtractions to the list as well as any reviews, comments or criticisms on the material included. A blank form, similar to the one used in listing the texts, is included for your use. Please address

all comments to this author's attention, P. O. Box 9714, Atlanta, Georgia 30319.

Acknowledgments

I would like to thank, at this time, Paulette Groen, Librarian of the Computer and Automation Research and Information Center of the Society of Manufacturing Engineers (CARIC/SME,) and Marilyn Williamson, Librarian at the Georgia Institute of Technology for their help and patience in the preparation of this volume. Their cooperation helped greatly in the early stages of this project.

I would also like to thank the many publishers who responded promptly to our request for information. Special thanks go to those who sent review copies.

Finally, I would like to thank Dr. Kenneth R. Allen, commissioner of the work, whose untiring efforts have helped make high-tech vocational education in Georgia a reality and to Dr. Harmon R. Fowler under whose auspices all our efforts have been made possible.

TITLE:

AUTHOR(S):

PUBLISHER:

PUBLICATION DATE:

PRICE: NO. OF PAGES:

DESCRIPTION:

TITLE:

AUTHOR(S):

PUBLISHER:

PUBLICATION DATE:

PRICE: NO. OF PAGES:

DESCRIPTION:

INTRODUCTION TO COMPUTERS

TITLE: Computer Literacy: Problem Solving with Computers

AUTHOR(S): Carin E. Horn and James L. Poirot

PUBLISHER: Sterling Swift

PUBLICATION DATE: 1981

PRICE: $13.95 NO. OF PAGES: 304

DESCRIPTION:

Designed for the beginning student with no familiarity with computers. Provides a general understanding of how computers work, their effect on society and how to use them to solve problems. Available with an instruction manual that follows the text by chapter.

TITLE: The Beginner's Guide to Computers

AUTHOR(S): Robin Bradbeer, Peter DeBono and Peter Laurie

PUBLISHER: Addison-Wesley

PUBLICATION DATE: 1982

PRICE: $19.95 NO. OF PAGES: 208

DESCRIPTION:

Basic introduction to computers for the bona-fide novice. Little technical terminology used with clear and complete explanantions for those terms that are. Many real world examples used to illustrate concepts.

TITLE: Understanding Computer Systems

AUTHOR(S): Harold Lawson

PUBLISHER: Computer Science Press

PUBLICATION DATE: 1982

PRICE: $12.95 NO. OF PAGES:

DESCRIPTION:

Impressive text presents introduction to computer systems in an easy-to-read format requiring no mathematical background. Good illustrations, explanations and post-chapter questions.

TITLE: The Making of the Micro: A History of the Computer

AUTHOR(S): Christopher Riche Evans

PUBLISHER: Van Nostrand Reinhold

PUBLICATION DATE: 1981

PRICE: $14.95 NO. OF PAGES: 115

DESCRIPTION:

Unique history of the computer, from the counting frame to the chip, is presented. Perceives history as a process of development which continuously spawns technological marvels such as the micro. Includes look at people, places, things and events and has plenty of illustrations and photographs.

TITLE: How To Solve It By Computer

AUTHOR(S): R. Geoff Dromey

PUBLISHER: Prentice-Hall

PUBLICATION DATE: 1982

PRICE: $16.95 NO. OF PAGES: 400

DESCRIPTION:

Introduces computer problem-solving by leading reader to the discovery of algorithms. Programming language is kept to a minimum to allow flexibility, though many examples exist in pascal.

TITLE: Computer Problem Solving

AUTHOR(S): R. P. Watkins

PUBLISHER: Krieger

PUBLICATION DATE: 1974

PRICE: $10.50 NO. OF PAGES: 172

DESCRIPTION:

Introduction to computer problem solving.

TITLE: Computers and Information Technology: An Introduction

AUTHOR(S): Peter Burrows

PUBLISHER: Addison-Wesley

PUBLICATION DATE: 1983

PRICE: NO. OF PAGES: 96

DESCRIPTION:

An introduction to computers for those with no previous experience in computing, this book is written in a clear and easy to read style. Does not require the presence of a computer.

TITLE: Introduction to Computer Design and Implementation

AUTHOR(S): S. I. Ahmad

PUBLISHER: Computer Science Press

PUBLICATION DATE: 1980

PRICE: $23.95 NO. OF PAGES:

DESCRIPTION:

Introductory text bridgring the hardware-software gap with an integrated approach. Numerous examples and homework problems in this first-course work.

TITLE: Computer Design

AUTHOR(S): Glen G. Langdon, Jr.

PUBLISHER: Computeach Press

PUBLICATION DATE: 1982

PRICE: $36.00 NO. OF PAGES: 577

DESCRIPTION:

A unique book lending the reader an understanding of how a real computer system is designed and implemented, using a 16-bit processor as an example. Answers many of the "whys" as well as the "hows" and includes a design project.

TITLE: Introduction to Computer Organization

AUTHOR(S): Ivan Tomek

PUBLISHER: Computer Science Press

PUBLICATION DATE: 1981

PRICE: $26.95 NO. OF PAGES: 456

DESCRIPTION:

An introduction to the structure and design of digital circuits and an overview of computer architecture minus the overt electronic details. Uniquely covers all the recommended topics of the ACM '78 curriculum proposal and is accompanied by a workbook.

TITLE: Information Processing Systems: An Introduction to Modern Computer-Based Information Systems

AUTHOR(S): William S. Davis

PUBLISHER: Addison-Wesley

PUBLICATION DATE: 1981

PRICE: $21.95 NO. OF PAGES:

DESCRIPTION:

Turnkey course package for the beginner can be used as standalone text or with available supplements on BASIC, FORTRAN, workbook and transparency masters. Assumes no previous experience.

TITLE: Introduction to Computer Programming

AUTHOR(S): Crawford and Copp

PUBLISHER: Houghton Mifflin

PUBLICATION DATE: 1981

PRICE: $5.94 NO. OF PAGES:

DESCRIPTION:

Introductory approach to BASIC. COBOL or FORTRAN prepares new rew readers for further studies. Explains what computers do--and cannot do.

TITLE: Minicomputer Systems

AUTHOR(S): M. Vardell Lines

PUBLISHER: Little, Brown and Co.

PUBLICATION DATE: 1980

PRICE: $22.95 NO. OF PAGES: 217

DESCRIPTION:

Overview of the minicomputer field offering design approach resulting in successful applications. Thorough treatment of hardware, software, operating systems and networks included.

TITLE: Handbook of Microprocessors, Microcomputers and Minicomputers

AUTHOR(S): John D. Lenk

PUBLISHER: Prentice-Hall

PUBLICATION DATE: 1980

PRICE: $22.95 NO. OF PAGES: 1980

DESCRIPTION:

Introduces microprocessor-based equipment in a technically sound and accurate manner in non-technical terms. Interrelates microprocessors to peripheral equipment and illustrates sample programs.

DIGITAL ELECTRONICS AND TECHNOLOGY

TITLE: Digital Systems: Principles and Applications

AUTHOR(S): R. Tocci

PUBLISHER: Prentice-Hall

PUBLICATION DATE: 1980

PRICE: $24.95 NO. OF PAGES: 540

DESCRIPTION:

Prentice-Hall's best-seller on subject provides comprehensive treatment on digital systems requiring no previous electronics training to grasp. Geared for those in and out of major.

TITLE: Logical Design of Digital Systems

AUTHOR(S): Arthur D. Friedman

PUBLISHER: Computer Science Press

PUBLICATION DATE: 1975

PRICE: $23.95 NO. OF PAGES:

DESCRIPTION:

Introduction to the design of digital computer systems beginning with the simplest level of gate logic design. Systematic introduction geared toward beginners.

TITLE: Digital Electronics: An Introduction to Theory and Practice

AUTHOR(S): William H. Gothmann

PUBLISHER: Prentice-Hall

PUBLICATION DATE: 1982

PRICE: $23.95 NO. OF PAGES: 383

DESCRIPTION:

Bridges the gap between theory and practice by offering a comprehensive introduction to basic design technology. Includes elaboration of basic design tools for problem solving.

TITLE: Digital Computer Electronics

AUTHOR(S): Albert Paul Malvino

PUBLISHER: McGraw-Hill

PUBLICATION DATE: 1981

PRICE: $23.95 NO. OF PAGES: 337

DESCRIPTION:

Introduction to digital computer electronics using microcomputer as example. Focus on 8080 and 8085 processor chips.

TITLE: Digital Technology with Microprocessors

AUTHOR(S): Frank Cave and David Terrell

PUBLISHER: Reston

PUBLICATION DATE: 1980

PRICE: $22.95 NO. OF PAGES: 448

DESCRIPTION:

Covers a range of fundamental issues in digital technology as they relate to microprocessors. Stresses utilization and interpretation of manufacturers data. Includes chapters on the 8080 and Z-80 microprocessor.

TITLE: Digital and Microprocessor Technology

AUTHOR(S): Patrick O'Connor

PUBLISHER: Prentice-Hall

PUBLICATION DATE: 1982

PRICE: $29.95 NO. OF PAGES: 576

DESCRIPTION:

Unsophisticated introduction to digital systems theory and operation techniques. Provides the inexperienced with necessary "buzz-words" to pursue studies at a higher level or to move on with a rudimentary knowledge of the technology.

TITLE: Digital Circuits and Systems

AUTHOR(S): Richard Castellucis

PUBLISHER: Reston

PUBLICATION DATE: 1980

PRICE: $22.95 NO. OF PAGES: 332

DESCRIPTION:

Presents most commonly used digital circuits using TTL ICs. Emphasizes the function and application of these devices as applied to logic systems through a "hands-on" approach.

TITLE: Digital Equipment Troubleshooting

AUTHOR(S): M. Namgostar

PUBLISHER: Reston

PUBLICATION DATE: 1977

PRICE: $22.95 NO. OF PAGES: 288

DESCRIPTION:

Emphasizes troubleshooting aspects of computer circuits and systems. Discusses all types of troubleshooting devices used in computer testing.

TITLE: Understanding Digital Electronics

AUTHOR(S): Gene McWhorter

PUBLISHER: Texas Instruments Learning Center

PUBLICATION DATE: 1978

PRICE: $2.50 NO. OF PAGES: 264

DESCRIPTION:

Easy to read and easy to learn from volume clearly explains a wide range of digital electronic devices, circuits and systems. Well organized book contains glossary, quizzes and ample illustrations.

TITLE: Basic Digital Electronics with MSI Applications

AUTHOR(S): John A. Dempsey

PUBLISHER: Addison-Wesley

PUBLICATION DATE: 1977

PRICE: $24.95 NO. OF PAGES: 432

DESCRIPTION:

Textbook on basic principles of digital circuits written for first-time students in technical electronics, computer science, consumer electronics and other related courses.

OPERATING AND DATABASE SYSTEMS

TITLE: Principles of Database Systems

AUTHOR(S): Jeffrey D. Ullman

PUBLISHER: Computer Science Press

PUBLICATION DATE: 1982

PRICE: $26.95 NO. OF PAGES:

DESCRIPTION:

Comprehensive treatment of the theory and general principles relevant to database systems. Includes in-depth coverage of relational models, distributed systems and features many examples and exercises as well as bibliographic notes.

TITLE: An Introduction to Database Systems

AUTHOR(S): C. J. Date

PUBLISHER: Addison-Wesley

PUBLICATION DATE: 1981

PRICE: $26.95 NO. OF PAGES: 704

DESCRIPTION:

A comprehensive introduction to database systems includes discussion of three major types of databases: relational, hierarchical and network. Assumes previous exposure to computer systems.

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TITLE: Fundamentals of Data Structures

AUTHOR(S): Ellis Horowitz and Sartaj Sahni

PUBLISHER: Computer Science Press

PUBLICATION DATE: 1982

PRICE: $26.95 NO. OF PAGES:

DESCRIPTION:

Popular text includes all the topics normally covered in a data structures course. Includes instruction in basic skills and features over 200 exercises.

TITLE: Data Structures

AUTHOR(S): Edward M. Reingold and Wilfred J. Hanson

PUBLISHER: Little, Brown and Co.

PUBLICATION DATE: 1983

PRICE: $28.95 NO. OF PAGES: 448

DESCRIPTION:

A comprehensive introduction to the field of data structures with a balanced coverage of theory and applications. Unique presentation distinguishes between the abstract properties of data structure and its actual implementation.

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TITLE: Operating Systems

AUTHOR(S): Harold Lorin and Harvey M. Deitel

PUBLISHER: Addison-Wesley

PUBLICATION DATE: 1981

PRICE: $25.95 NO. OF PAGES: 480

DESCRIPTION:

An informal non-mathematical introduction to operating systems combines conventional and "real-world" design issues of computer operating systems. Contains over 400 exercises.

TITLE: Microcomputer Operating Systems

AUTHOR(S): Mark Dahmke

PUBLISHER: Byte

PUBLICATION DATE: 1981

PRICE: $16.95 NO. OF PAGES: 240

DESCRIPTION:

General introduction to microcomputer operating systems primarily for users. Wide range of topics includes multi-processing with the micro.

TITLE: The UNIX System

AUTHOR(S): Stephen R. Bourne

PUBLISHER: Addison-Wesley

PUBLICATION DATE: 1982

PRICE: $16.95 NO. OF PAGES: 320

DESCRIPTION:

Practical guide to the highly acclaimed operating system comes direct from the "horse's mouth," Bell Labs. This book discusses all major versions of UNIX with emphasis on utilities unique to the system, particularly in the areas of editing, text processing and data manipulation.

TITLE: Starting with UNIX

AUTHOR(S): P. J. Brown

PUBLISHER: Addison-Wesley

PUBLICATION DATE: 1983

PRICE: NO. OF PAGES: 160

DESCRIPTION:

Helpful guide to programming written with the beginner in mind. Explanantion of the principles behind UNIX precedes actual discussion of the details of the system and examples of its use.

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MICROCOMPUTERS AND MICROPROCESSORS

TITLE: Introduction to Microcomputing

AUTHOR(S): Sydney B. Newell

PUBLISHER: Harper & Row

PUBLICATION DATE: 1982

PRICE: $19.50 NO. OF PAGES:

DESCRIPTION:

Assumes no prior knowledge of computers, electronics or engineering, this introductory text gives the reader an in-depth familiarity with the Motorola 6800 microprocessor. Abundant learning aids, review questions and end-of-chapter exercises highlight book's format.

TITLE: Introduction to Microcomputers

AUTHOR(S): Erik L. Dagless and David Aspinall

PUBLISHER: Computer Science Press

PUBLICATION DATE: 1982

PRICE: $21.95 NO. OF PAGES:

DESCRIPTION:

Class-tested text on the current state of microcomputer technology. Includes chapters on a wide range of subjects written in a clear and lucid manner assuming no prior experience with computers. Offers a device independent approach.

TITLE: Introduction to Microprocessors

AUTHOR(S): Herb Brunner

PUBLISHER: Reston

PUBLICATION DATE: 1982

PRICE: $23.95 NO. OF PAGES: 312

DESCRIPTION:

Text describes the basic parts of microcomputer systems and how they interact. Emphasizes the 6800, 6809, 68000 and the 3870 microprocessors and includes examples and sample applications.

TITLE: Understanding Microprocessors

AUTHOR(S): Rich Lloyd

PUBLISHER: Reston

PUBLICATION DATE: 1981

PRICE: $19.95 NO. OF PAGES: 336

DESCRIPTION:

Step-by-step introduction in non-technical terms to the complexities of the microprocessor. No fabrication details given but a basic understanding of electronics is required.

TITLE: Microprocessor Software: Programming Concepts and Techniques

AUTHOR(S): Gene Streitmatter

PUBLISHER: Reston

PUBLICATION DATE: 1980

PRICE: $20.95 NO. OF PAGES: 375

DESCRIPTION:

Introductory text in programming microprocessors using assembly language. Stresses the development of good programming habits and requires no previous knowledge of programming.

TITLE: Flowcharting

AUTHOR(S): McQuigg and Harness

PUBLISHER: Houghton Mifflin

PUBLICATION DATE:

PRICE: $4.38 NO. OF PAGES:

DESCRIPTION:

Fundamental facts on flowcharting written on an easy level and can be used without a computer. Helps reader learn to organize objectives in a precise and logical method.

TITLE: Fundamentals of Programming in BASIC

AUTHOR(S): Robert C. Nickerson

PUBLISHER: Little, Brown and Co.

PUBLICATION DATE: 1981

PRICE: $16.95 NO. OF PAGES: 400

DESCRIPTION:

A clearly written and thorough introduction to computer programming and the BASIC language, this text is directed toward students with minimal mathematics backgrounds. Stresses program development and includes a wide range of problems and exercises.

TITLE: Structured BASIC and Beyond

AUTHOR(S): Wayne Amsbury

PUBLISHER: Computer Science Press

PUBLICATION DATE: 1980

PRICE: $15.95 NO. OF PAGES:

DESCRIPTION:

Excellent text teaches the BASIC programming language and provides a firm foundation in proper programming techniques. Uses BASIC to illustrate computer-related concepts for use in other coursework.

TITLE: BASIC for Students: With Applications

AUTHOR(S): Michael Trombetta

PUBLISHER: Addison-Wesley

PUBLICATION DATE: 1981

PRICE: $14.95 NO. OF PAGES: 320

DESCRIPTION:

This book focuses on the practical applications of problem-solving in BASIC and is geared for those with no prior computing experience. Emphasizes algorithmic development, syntax and includes detailed information on translating flowcharts into BASIC.

TITLE: A Guided Tour of Computer Programming in BASIC

AUTHOR(S): Thomas A. Dwyer and Michael S. Kaufman

PUBLISHER: Houghton Mifflin

PUBLICATION DATE: 1982

PRICE: $ 5.07 NO. OF PAGES:

DESCRIPTION:

Elementary introduction to BASIC programming language written as first text for first course in programming. Many examples from daily life to reinforce explanations.

TITLE: Basic Computer Programming

AUTHOR(S): Thomas C. Bartee

PUBLISHER: Harper & Row

PUBLICATION DATE: 1981

PRICE: $13.75 NO. OF PAGES: 307

DESCRIPTION:

Easy to follow introduction to computer programming and the Basic programming language. Requires no mathematical or computer science prerequisites and includes many practical examples from real world applications.

TITLE: Computer Programming in Basic

AUTHOR(S): George T. Chou

PUBLISHER: Harper & Row

PUBLICATION DATE: 1979

PRICE: $10.50 NO. OF PAGES: 305

DESCRIPTION:

Introduction to data processing and the Basic language with emphasis on business applications. Extensive chapter on flowcharting is included.

TITLE: A User Guide to the UNIX System

AUTHOR(S): Rebecca Thomas and Jean Yates

PUBLISHER: Osborne/McGraw-Hill

PUBLICATION DATE: 1982

PRICE: $15.99 NO. OF PAGES: 508

DESCRIPTION:

Helpful self-teaching guide to the UNIX operating system complete with tutorials. Transportable hands-on approach with clear easy to read explanations of system commands highlight the main attributes of this book.

TITLE: Using CP/M

AUTHOR(S): Judi N. Fernandez and Ruth Ashley

PUBLISHER: John Wiley & Sons

PUBLICATION DATE: 1980

PRICE: $14.95 NO. OF PAGES: 243

DESCRIPTION:

A self-teaching guide to the CP/M operating system. Organized like a workbook, this book is very easy to follow and requires no previous experience with the subject.

PROGRAMMING LANGUAGES AND TECHNIQUES

TITLE: Structured COBOL: A Modern Approach

AUTHOR(S): Henry Mullish

PUBLISHER: Harper & Row

PUBLICATION DATE: 1983

PRICE: $15.00 NO. OF PAGES: 368

DESCRIPTION:

Incorporates a range of business applications and exercises in in text/workbook format. Includes chapters on reading, writing, running, checking and debugging programs written in conversational style.

TITLE: COBOL for Students: A Programming Primer

AUTHOR(S): Robert G. Finkenaur

PUBLISHER: Little, Brown and Co.

PUBLICATION DATE: 1977

PRICE: $16.95 NO. OF PAGES: 384

DESCRIPTION:

Oriented to the beginning programmer, this text initiates the reader to the world of computers in a gentle yet progressive fashion. An application independent text focusing on data processing operations.

TITLE: COBOL Programming for Microcomputers: Using CIS COBOL

AUTHOR(S): Ray Welland

PUBLISHER: Addison-Wesley

PUBLICATION DATE: 1983

PRICE: NO. OF PAGES: 200

DESCRIPTION:

Unique text covering CIS version of COBOL for the microcomputer. Practical guide and introductory text teaches good programming practice and safe program structures. Special features of CIS COBOL are described.

TITLE: COBOL: An Introduction to Structured Logic and Modular Program Design

AUTHOR(S): William S. Davis and Richard H. Fisher

PUBLISHER: Addison-Wesley

PUBLICATION DATE: 1979

PRICE: $18.95 NO. OF PAGES: 552

DESCRIPTION:

Introductory text to COBOL programming stressing the program development process, modular program design, sequential file processing and direct access file processing.

TITLE: Microprocessors: Theory and Application

AUTHOR(S): Gene Streitmatter and Vito Fiori

PUBLISHER: Reston

PUBLICATION DATE: 1982

PRICE: $22.95 NO. OF PAGES: 544

DESCRIPTION:

Basic and comprehensive approach to microprocessors moves from fundamental principles to complete systems. Covers the Intel 8080A and Motorola M6800 microprocessors. Combines hardware and software approaches.

TITLE: Microprocessor Technology

AUTHOR(S): David Terrell

PUBLISHER: Reston

PUBLICATION DATE: 1983

PRICE: $19.95 NO. OF PAGES: 400

DESCRIPTION:

Text provides comprehensive hardware and software approach to the real-world coverage of the Z-80 microprocessor. Illustrates theory with various applications.

TITLE: Microcomputer Design and Troubleshooting

AUTHOR(S): Eugene Zumchak

PUBLISHER: Bobbs-Merrill

PUBLICATION DATE: 1982

PRICE: $17.95 NO. OF PAGES: 368

DESCRIPTION:

Manual covers the design and construction of microcomputer systems without the need for expensive development gear or test instrumentation. Instructs in how to build, develop and apply microprocessor-based instrumentation.

TITLE: Understanding and Troubleshooting the Microprocessor

AUTHOR(S): James W. Coffron

PUBLISHER: Prentice-Hall

PUBLICATION DATE: 1980

PRICE: $23.95 NO. OF PAGES: 352

DESCRIPTION:

Hardware-oriented text explains microprocessor systems by breaking them down into small functional subsystems. Appropriate for single semester courses, nust be precluded by introduction to digital theory.

TITLE: Computer Peripherals for Minicomputers, Microprocessors and Personal Computers

AUTHOR(S): C. Louis Hohenstein

PUBLISHER: McGraw-Hill

PUBLICATION DATE:

PRICE: $23.95 NO. OF PAGES: 320

DESCRIPTION:

First single-source guide dedicated to complete range of peripherals an average computer system installation would require. Describes function and operation of a wide range of devices.

TITLE: Interfacing to Microprocessors

AUTHOR(S): J. C. Cluley

PUBLISHER: McGraw-Hill

PUBLICATION DATE:

PRICE: $24.50 NO. OF PAGES: 160

DESCRIPTION:

Interfacing guide with specific practical applications for the microprocessor. Device independent approach accommodates a wide range of hardware types.

DATA COMMUNICATIONS

TITLE: Computer Network Architectures

AUTHOR(S): Anton Meijer and Paul Peeters

PUBLISHER: Computer Science Press

PUBLICATION DATE: 1983

PRICE: $28.95 NO. OF PAGES: 396

DESCRIPTION:

Excellent overview of the various computer network architectures in use in the world today. Bridges the gap between theoretical literature and real world situations and oriented towards those in a non-research environment.

TITLE: Introduction to Local Area Networks

AUTHOR(S): Digital Equipment Corporation

PUBLISHER: Digital Press

PUBLICATION DATE: 1982

PRICE: $10.00 NO. OF PAGES: 159

DESCRIPTION:

Introductory text on traditional distributive processing and networking concepts turns out to be DEC's best selling title. Written for the reader familiar with computers, the book highlights DEC hardware.

TITLE: Data Communications

AUTHOR(S): Robert B. Techo

PUBLISHER: Plenum

PUBLICATION DATE: 1980

PRICE: $27.50 NO. OF PAGES: 304

DESCRIPTION:

An introduction to concepts and design of data communications systems.

TITLE: Computer Network Architecture and Protocols

AUTHOR(S): Paul E. Green

PUBLISHER: Plenum

PUBLICATION DATE: 1982

PRICE: $59.50 NO. OF PAGES: 735

DESCRIPTION:

Source as well as text book on computer network architecture and communications protocols. Voluminous representation of technologies.

TITLE: The Complete Handbook of Personal Computer Communications

AUTHOR(S): Alfred Glossbrenner

PUBLISHER: St. Martins

PUBLICATION DATE: 1983

PRICE: $14.95 NO. OF PAGES: 325

DESCRIPTION:

"Everything you need to go online with the world," is how the the book bills itself, and it comes mighty close. Device independent approach enables users of microcomputers to take advantage of the vast networks now being developed. Unique volume with plenty of valuable insight and information.

TITLE: Telecommunications and Networking

AUTHOR(S): Udo W. Pooch, William H. Greene and Gary G. Moss

PUBLISHER: Little, Brown and Co.

PUBLICATION DATE: 1983

PRICE: $29.95 NO. OF PAGES: 400

DESCRIPTION:

This introductory text takes a user-oriented approach in examining computer networks and telecommunications and covering the important aspects of hardware, software and design related to them.

TITLE: Data Communications for Microcomputers, With Practical Applications and Experiments

AUTHOR(S): Elizabeth A. Nichols, John C. Nichols and Keith R. Musson

PUBLISHER: McGraw-Hill

PUBLICATION DATE: 1982

PRICE: $16.95 NO. OF PAGES: 204

DESCRIPTION:

Introductory guide to the hardware and software used in microcomputer data communications. Emphasis is on troubleshooting and problem solving techniques. Series of experiments include use of Z-80 microprocessor.

TITLE: Data Transmission

AUTHOR(S): Dogan Tugal and Osman Tugal

PUBLISHER: McGraw-Hill

PUBLICATION DATE: 1982

PRICE: $26.95 NO. OF PAGES: 393

DESCRIPTION:

Survey and guide to data transmission techniques for those already in the field--or planning to go into it. Provides practical information on a range of technologies in a clear and comprehensive manner.

TITLE: Fiber Optics

AUTHOR(S): Edward A. Lacy

PUBLISHER: Prentice-Hall

PUBLICATION DATE: 1982

PRICE: $21.95 NO. OF PAGES: 222

DESCRIPTION:

Comprehensive up-to-date and well-illustrated introduction to fiber optics. Avoids esoteric jargon, this text is aimed at readers with an average technical background and no prior exposure to optics.

TITLE: Optical Fiber Transmission Systems

AUTHOR(S): Stewart D. Personick

PUBLISHER: Plenum

PUBLICATION DATE: 1981

PRICE: $25.00 NO. OF PAGES: 192

DESCRIPTION:

Volume dedicated to a better understanding as well as increased practical applications of a technology soon to come into its own. Emphasis on telecommunications.

TITLE: Electro-Optic and Acousto-Optic Scanning and Deflection

AUTHOR(S): Milton Gottlieb, Clive L. M. Ireland and John Martin Ley

PUBLISHER: Marcel Dekker

PUBLICATION DATE: 1983

PRICE: $35.00 NO. OF PAGES: 208

DESCRIPTION:

Expansive volume provides essential information on diverse applications including laser modulation and control for optical communications, optical processing, laser display and printing and laser assisted manufacturing.

TITLE: Principles of Optics

AUTHOR(S): M. Born and E. Wolf

PUBLISHER: Pergamon

PUBLICATION DATE: 1980

PRICE: $54.00 NO. OF PAGES: 808

DESCRIPTION:

Classic work in the field of optics includes historical introduction, electromagnetics, geometrical optics, optics of crystals, metals, etc. Specifically concerned with the electromagnetic theory of propagation, interference and diffraction of light.

TITLE: Microwave Devices

AUTHOR(S): James T. Coleman

PUBLISHER: Reston

PUBLICATION DATE: 1982

PRICE: $22.95 NO. OF PAGES: 300

DESCRIPTION:

Introduces basic principles of microwave and millimeter wave devices. Offers extensive applications and requires no advanced math.

TITLE: Digital Signal Processing

AUTHOR(S): William D. Stanley and Gary and Ray Dougherty

PUBLISHER: Reston

PUBLICATION DATE: 1983

PRICE: $23.95 NO. OF PAGES: 350

DESCRIPTION:

Provides introductory treatment of various digital signal processing systems and techniques. Text prepares reader for more advanced studies in field.

COMPUTER GRAPHICS

TITLE: Fundamentals of Interactive Computer Graphics

AUTHOR(S): J. D. Foley and A. Van Dam

PUBLISHER: Addison-Wesley

PUBLICATION DATE: 1982

PRICE: $34.95 NO. OF PAGES: 664

DESCRIPTION:

Quickly becoming a standard in its field, this book presents graphics concepts and recent advances in graphics hardware and software. The authors develop a complete graphics application program using the recent CORE System of standard graphic subroutines. Plenty of illustrations and programming examples.

TITLE: Principles of Interactive Computer Graphics

AUTHOR(S): William M. Newman and Robert F. Sproull

PUBLISHER: McGraw-Hill

PUBLICATION DATE: 1979

PRICE: $35.50 NO. OF PAGES: 541

DESCRIPTION:

The original standard in its field, this book presents a comprehensive overview of graphics programming techniques less the emphasis on recent advances. Stresses device independence of technique.

TITLE: Computer Graphics: A Programming Approach

AUTHOR(S): Steven Harrington

PUBLISHER: McGraw-Hill

PUBLICATION DATE: 1983

PRICE: $19.95 NO. OF PAGES: 448

DESCRIPTION:

Excellent introductory text to graphics programming techniques. Loaded with exercises and examples, this book boasts a true device independent approach based on CORE standards with appropriate subroutines in Appendix for quick easy run on a variety of machines.

TITLE: Algorithms for Graphics and Image Processing

AUTHOR(S): Theo Pavlidis

PUBLISHER: Computer Science Press

PUBLICATION DATE: 1982

PRICE: $29.95 NO. OF PAGES: 416

DESCRIPTION:

Comprehensive treatment of pictorial information processing by computer including computer graphics, image processing and pictorial pattern recognition. Examples and programming exercises contained throughout. Well written and easy to understand.

TITLE: A Practical Introduction to Computer Graphics

AUTHOR(S): Ian O. Angell

PUBLISHER: John Wiley & Sons

PUBLICATION DATE: 1981

PRICE: $16.95 NO. OF PAGES: 146

DESCRIPTION:

General introduction to computer graphics procedures and techniques. Informal approach stresses practical application.

TITLE: Introduction to Interactive Computer Graphics

AUTHOR(S): Joan E. Scott

PUBLISHER: John Wiley & Sons

PUBLICATION DATE: 1982

PRICE: $25.95 NO. OF PAGES: 255

DESCRIPTION:

Detailed introduction to interactive computer graphics includes sections on hardware, software and practical uses and applications.

TITLE: Geometric Principles and Procedures for Computer Graphics Applications

AUTHOR(S): Sylvan H. Chasen

PUBLISHER: Prentice-Hall

PUBLICATION DATE: 1978

PRICE: $27.00 NO. OF PAGES: 250

DESCRIPTION:

Classic introduction to the primary analytical and geometrical foundations upon which computer graphic applications should be based. Provides reader with explicit formulas and examples to develop own procedures. Requires limited math background.

TITLE: Interactive Computer Graphics: Data Structures, Algorithms, Languages

AUTHOR(S): Wolfgang K. Giloi

PUBLISHER: Prentice-Hall

PUBLICATION DATE: 1978

PRICE: $27.95 NO. OF PAGES: 354

DESCRIPTION:

Systematic overview of elements of interactive computer graphics. Requires background in computer science or high-level language programming and data structures.

TITLE: Digital Image Processing: A Systems Approach

AUTHOR(S): William B. Green

PUBLISHER: Van Nostrand Reinhold

PUBLICATION DATE:

PRICE: $34.50 NO. OF PAGES: 203

DESCRIPTION:

An examination of image-making techniques on the computer. Multi-application approach stresses the design, implementation and maintenance of systems and software. Many examples and illustrations.

TITLE: Computers for Imagemaking

AUTHOR(S): D. Clark

PUBLISHER: Pergamon

PUBLICATION DATE: 1981

PRICE: $31.00 NO. OF PAGES: 156

DESCRIPTION:

Affords the newcomer insight into the nature of computer animation, graphics and imagemaking. Assumes anyone can master the techniques of image generation providing the proper information is mastered.

TITLE: Microcomputer Graphics

AUTHOR(S): Roy E. Myers

PUBLISHER: Addison-Wesley

PUBLICATION DATE: 1982

PRICE: $12.95 NO. OF PAGES: 282

DESCRIPTION:

Comprehensive treatment of graphics for the microcomputer using the Apple as an example. Contains over 80 ready to run programs in Basic and is written at an introductory level. Programs available on diskette from author.

TITLE: Microcomputer Graphics and Programming Techniques

AUTHOR(S): Harry Katzan, Jr.

PUBLISHER: Van Nostrand Reinhold

PUBLICATION DATE: 1982

PRICE: $18.95 NO. OF PAGES: 229

DESCRIPTION:

Device independent introduction to microcomputer graphics written in clear, easy to understand language for the beginner. Contains 20 ready to run programs and plenty of illustrations and examples.

TITLE: Microcomputer Graphics: Techniques and Applications

AUTHOR(S): Donald Hearn and M. Pauline Baker

PUBLISHER: Prentice-Hall

PUBLICATION DATE: 1983

PRICE: $24.95 NO. OF PAGES: 272

DESCRIPTION:

Introduction to microcomputer-based graphics depends on prior exposure to BASIC programming language. Device independent approach suitable for a variety of machines.

TITLE: Computer Graphics Primer

AUTHOR(S): Mitchell Waite

PUBLISHER: Bobbs-Merrill

PUBLICATION DATE: 1979

PRICE: $14.95 NO. OF PAGES: 184

DESCRIPTION:

Introductory text on computer graphics for microcomputers features lessons in BASIC and examples on the Apple II. Includes section on computer graphic animation.

TITLE: Comprehensive Graphic Arts

AUTHOR(S): Ervin A. Dennis and John D. Jenkins

PUPLISHER: Bobbs-Merrill

PUBLICATION DATE: 1983

PRICE: $26.95 NO. OF PAGES: 576

DESCRIPTION:

Second edition of best-selling graphic arts textbook now includes significant sections on state-of-the-art phototypography and electronic image generation, in addition to chapters on conventional practice.

TITLE: Graphic Communication '80s

AUTHOR(S): Edward M. Gottschall

PUBLISHER: Prentice-Hall

PUBLICATION DATE: 1982

PRICE: $27.95 NO. OF PAGES: 231

DESCRIPTION:

Total view of digital and electronic technologies in information processing and the graphic arts. Includes many application examples as well as forecasts on the impact these new technologies will have on the preparation of text and graphics.

TITLE: Introduction to Computer-Aided Drafting

AUTHOR(S): David L. Goetsch

PUBLISHER: Prentice-Hall

PUBLICATION DATE: 1983

PRICE: $21.95 NO. OF PAGES: 240

DESCRIPTION:

Generalized introduction to the elements of computer-aided drafting with focus on hardware identification. Pictures of components and sample drawings in lieu of work examples and exercises.

TITLE: Computer Aided Drawing Using the Tektronix Graphic System

AUTHOR(S): Norman Neundorf

PUBLISHER: Prentice-Hall

PUBLICATION DATE: 1983

PRICE: $16.95 NO. OF PAGES: 320

DESCRIPTION:

Device dependent introduction to computer-aided drawing requires prior exposure to BASIC. Designed to complement traditional drafting studies and efforts, this text relies on the accessibility of Tektronix hardware.

COMPUTER-AIDED DESIGN AND MANUFACTURING

TITLE: Computer-Aided Design and Manufacture

AUTHOR(S): C. B. Besant

PUBLISHER: John Wiley & Sons

PUBLICATION DATE: 1983

PRICE: $54.95 NO. OF PAGES: 232

DESCRIPTION:

General introduction to the elements of computer-aided design and manufacturing technology. Geared toward the reader with little or no computing experience with the emphasis on the practical use of CAD and CAM systems.

TITLE: The CAD/CAM Glossary

AUTHOR(S): John J. Allan III

PUBLISHER: Productivity International

PUBLICATION DATE: 1979

PRICE: NO. OF PAGES: 203

DESCRIPTION:

Generic vocabulary guide to computer-aided design and manufacturing technology. Contains a complete range of related terminology as well, eliminating need for overlapping glossaries.

TITLE: Computer Applications in Manufacturing

AUTHOR(S): Thomas G. Gunn

PUBLISHER: Industrial Press

PUBLICATION DATE: 1981

PRICE: $23.95 NO. OF PAGES: 204

DESCRIPTION:

Slowly becoming definitive volume of its type, Computer Applications in Manufacturing contains a complete and comprehensive look at the elements of the "factory of the future." Includes information on BOM, MRP, production planning, shop floor control and scheduling in addition to CAD, CAM and a host of others.

TITLE: Automation, Production Systems and Computer-Aided Manufacturing

AUTHOR(S): Mikell P. Groover

PUBLISHER: Prentice-Hall

PUBLICATION DATE: 1980

PRICE: $21.95 NO. OF PAGES: 601

DESCRIPTION:

Provides a comprehensive survey of the concepts, principles and practices of modern manufacturing systems. The book's highly flexible structure allows the adaptation of material to parcicular course requirements.

TITLE: Improving Productivity by Classification, Coding, and Data Base Standardization

AUTHOR(S): William F. Hyde

PUBLISHER: Marcel Dekker

PUBLICATION DATE:

PRICE: NO. OF PAGES:

DESCRIPTION:

Billed as "the key to maximizing CAD/CAM and group technology," this book covers areas not usually addressed in books of this type. Can be very helpful when used in conjunction with other, more basic, texts.

TITLE: The Role of Computers in the Manufacturing Process

AUTHOR(S): Gideon Halevi

PUBLISHER: Synapse

PUBLICATION DATE: 1980

PRICE: $59.50 NO. OF PAGES: 502

DESCRIPTION:

Discusses the manufacturing process as a single unique system involving the interrelationships of all current methods. Offers chapters on generative process planning, shop floor control, among other topics.

TITLE: CAD/CAM: Meeting Today's Productivity Challenge

AUTHOR(S): K. Tamaran

PUBLISHER: Society of Manufacturing Engineers

PUBLICATION DATE: 1980

PRICE: $32.00 NO. OF PAGES: 281

DESCRIPTION:

Overview of CAD/CAM applications in manufacturing industry includes chapters on process planning, product design, quality control and inspection automation.

TITLE: Advances in CAD/CAM

AUTHOR(S): T. M. R. Ellis and O. I. Semenkov

PUBLISHER: Elsevier/North Holland

PUBLICATION DATE: 1983

PRICE: $76.50 NO. OF PAGES: 720

DESCRIPTION:

Conference proceedings outline and highlight state-of-the-art advances in CAD/CAM theory and practice from around the world. Includes many informative application examples and experiences.

TITLE: Introduction to Computer-Aided Manufacturing in Electronics

AUTHOR(S): Douglas A. Cassell

PUBLISHER: Krieger

PUBLICATION DATE: 1972

PRICE: $19.50 NO. OF PAGES: 248

DESCRIPTION:

Application oriented introduction to computer-aided manufacturing in the electronics industry. Dedicated text a forerunner but now has become slightly dated.

TITLE: Computer-Aided Kinematics for Machine Design

AUTHOR(S): Daniel L. Ryan

PUBLISHER: Marcel Dekker

PUBLICATION DATE: 1981

PRICE: $27.75 NO. OF PAGES: 273

DESCRIPTION:

Introductory text on the use of computer graphics in the design of machine elements. Complete with program listings for the unfamiliar reader, this book deals equally with simple kinematic linkages. Previous programming experience required.

TITLE: The CAD/CAM Workbook

AUTHOR(S): David L. Goetsch

PUBLISHER: South-Western

PUBLICATION DATE: 1983

PRICE: $3.95 NO. OF PAGES: 153

DESCRIPTION:

Simplified approach to subject requiring no previous knowledge of field. Designed to complement standard drafting texts, this book contains exercises for which the use of computer hardware is not necessary.

TITLE: Drafting and Manual Programming for Numerical Control

AUTHOR(S): Harold L. Chambers and Caryl Ann Chacey

PUBLISHER: Prentice-Hall

PUBLICATION DATE: 1980

PRICE: $31.95 NO. OF PAGES: 532

DESCRIPTION:

Trade and production oriented, this text explains the dimensional, mathematical and programming considerations in drafting and NC tape preparation. Requires a background in basic math and drafting. Emphasis is on performance in the process in a direct and precise way.

TITLE: Modern Machine Shop NC/CAM Guidebook

AUTHOR(S): Ken M. Gettelman and Mark D. Albert, editors

PUBLISHER: Gardner Publications

PUBLICATION DATE: 1983 Edition

PRICE: $5.00 NO. OF PAGES: 456

DESCRIPTION:

Digest-sized publication contains excellent introduction to the fundamentals of NC/CAM theory and practice. Intended primarily for users, NC/CAM Guidebook contains useful references, lucid examples and is updated annually.

TITLE: Computer Integrated Manufacturing

AUTHOR(S): Joseph Harrington, Jr.

PUBLISHER: Krieger

PUBLICATION DATE: 1973

PRICE: $20.50 NO. OF PAGES: 336

DESCRIPTION:

Dated overview of the elements of computer integrated manufacturing, yet still one of the few texts available on this specific subject.

TITLE: Production and Inventory Management in the Technological Age

AUTHOR(S): Paul R. Deis

PUBLISHER: Prentice-Hall

PUBLICATION DATE: 1983

PRICE: $25.95 NO. OF PAGES: 384

DESCRIPTION:

Introduction to concepts of manufacturing planning and control systems. Stresses integrated approach delineating the interrelationships between all elements of a system. Includes detailed discussion of latest Japanese trends in technique.

TITLE: Systems and Technology for Advanced Manufacturing

AUTHOR(S): Society of Manufacturing Engineers

PUBLISHER: Society of Manufacturing Engineers

PUBLICATION DATE: 1983

PRICE: $27.00 NO. OF PAGES:

DESCRIPTION:

Total view of all the elements comprising the "factory of tomorrow" today. Survey approach includes everything from application algorithms to process integration.

ROBOTICS

TITLE: Robotics: Applications and Social Implications

AUTHOR(S): Robert Ayres and Steve Miller

PUBLISHER: Ballinger

PUBLICATION DATE: 1983

PRICE: $32.50 NO. OF PAGES: 368

DESCRIPTION:

General introduction includes historical overview of robotics and a survey of leading application trends. A major portion of the book deals with current fears concerning job displacement and other social issues.

TITLE: Brains, Behavior and Robotics

AUTHOR(S): James S. Albus

PUBLISHER: Byte Books

PUBLICATION DATE: 1981

PRICE: $18.95 NO. OF PAGES: 352

DESCRIPTION:

Comprehensive introduction to the history, technology and application of robotics. Informal presentation stresses overall understanding and outlook for future rather than technical details.

TITLE: Robot Motion: Planning and Control

AUTHOR(S): Michael Brady, John M. Hollerbach, Timothy L. Johnson, Tomás Lozano-Perez and Matthew T. Mason

PUBLISHER: MIT Press

PUBLICATION DATE: 1982

PRICE: $37.50 NO. OF PAGES: 585

DESCRIPTION:

Volume comprised of technical papers grouped in five categories, Dynamics, Trajectory Planning, Compliance and Control, Feedback Control and Spatial Planning, and designed to help encourage and prepare students to make original contributions to the field.

TITLE: Robots in Industry

AUTHOR(S): Richard K. Miller

PUBLISHER: SEAI Institute

PUBLICATION DATE: 1982

PRICE: NO. OF PAGES:

DESCRIPTION:

Series of technical reports on specific applications including robots in assembly, foundaries, plastics industry and in metal fabrication.

TITLE: Robot Manipulators: Mathematics, Programming, and Control

AUTHOR(S): Richard P. Paul

PUBLISHER: MIT Press

PUBLICATION DATE: 1982

PRICE: $27.50 NO. OF PAGES: 279

DESCRIPTION:

Problem solving text in industrial robotics includes comprehensive approach to practical implementation of state of the art theories and techniques. Chapters on kinematics, dynamics and control, among others.

TITLE: Industrial Robotics Handbook

AUTHOR(S): V. Daniel Hunt

PUBLISHER: Industrial Press

PUBLICATION DATE: 1983

PRICE: $32.50 NO. OF PAGES: 432

DESCRIPTION:

One-of-a-kind reference includes topics on programming and system integration, safety considerations, application selection procedures and socioeconomic impacts.

TITLE: Android Design

AUTHOR(S): Martin Weinstein

PUBLISHER: Synapse

PUBLICATION DATE: 1981

PRICE: $12.95 NO. OF PAGES: 224

DESCRIPTION:

Comprehensive look at the tools, materials and techniques necessary for designing an android. Defines the subject and offers sample plans and exercises as well as establishing range of limits and expectations.

TITLE: How to Build a Computer Controlled Robot

AUTHOR(S): Tod Loofbourrow

PUBLISHER: Synapse

PUBLICATION DATE: 1978

PRICE: $11.95 NO. OF PAGES: 144

DESCRIPTION:

Detailed step-by-step instructions for building a computer controlled robot. Complete designs and diagrams including clearly written programs for microcomputer control included.

TITLE: How to Build Your Own Working Robot Pet

AUTHOR(S): Frank DaCosta

PUBLISHER: Synapse

PUBLICATION DATE: 1979

PRICE: $11.95 NO. OF PAGES:

DESCRIPTION:

Deatailed instructions on building a "robot pet" from a boxful of components. All electrical, mechanical and programmatic information included.

TITLE: How to Design and Build Your Own Custom Robot

AUTHOR(S): David L. Heiserman

PUBLISHER: Synapse

PUBLICATION DATE: 1981

PRICE: $18.95 NO. OF PAGES: 462

DESCRIPTION:

Comprehensive sourcebook provides hands-on advice and instruction in building a working robot. Requires understanding of basic electronics.

CONTROLS AND CONTROLLERS

TITLE: Servomechanisms: Devices and Fundamentals

AUTHOR(S): Richard Miller

PUBLISHER: Reston

PUBLICATION DATE: 1977

PRICE: $21.95 NO. OF PAGES: 272

DESCRIPTION:

Introduces mechanical positioning control through hands-on experience. Non-mathematical approach describes how servo devices work and how they are combined to create a functioning system.

TITLE: Feedback and Control Systems

AUTHOR(S): Anthony C. McDonald and Harold Lowe

PUBLISHER: Reston

PUBLICATION DATE: 1981

PRICE: $24.95 NO. OF PAGES: 512

DESCRIPTION:

Introduction to linear feedback control systems bridges gap between descriptive and theoretical texts on subject. Includes digital and hybrid servo systems.

TITLE: Process Control Instrumentation Technology

AUTHOR(S): Curtis D. Johnson

PUBLISHER: John Wiley & Sons

PUBLICATION DATE: 1982

PRICE: $27.95 NO. OF PAGES: 497

DESCRIPTION:

Practical approach to process control allowing the reader to design and construct a control system without the complicated math of control and stability theory.

TITLE: Introduction to Feedback Control Systems

AUTHOR(S): Pericles Emanuel and Edward Leff

PUBLISHER: Synapse

PUBLICATION DATE: 1979

PRICE: $33.95 NO. OF PAGES: 436

DESCRIPTION:

Presentation of theoretical concepts without reference to calculus. Digital servomechanisms are thoroughly explained, as well as digital-to-analog and analog-to-digital conversions.

TITLE: Industrial Process Control Systems

AUTHOR(S): Dale R. Patrick and Stephen W. Fardo

PUBLISHER: Bobbs-Merrill

PUBLICATION DATE: 1979

PRICE: $14.95 NO. OF PAGES: 200

DESCRIPTION:

Recently updated text reflects modern technological trends. Includes information on conventional systems in addition to new material on microcomputer process systems with industrial applications.

TITLE: Industrial Electronics

AUTHOR(S): James Humpheries and Leslie Sheets

PUBLISHER: Delmar/Breton

PUBLICATION DATE: 1983

PRICE: $24.95 NO. OF PAGES: 400

DESCRIPTION:

Comprehensive survey of state-of-the-art applications of various control technologies. Includes section on programmable controllers, process controls and microprocessor-based systems.

TITLE: Automated Process Control Systems: Concepts and Hardware

AUTHOR(S): Ronald P. Hunter

PUBLISHER: Prentice-Hall

PUBLICATION DATE: 1978

PRICE: $21.95 NO. OF PAGES: 390

DESCRIPTION:

Non-mathematical introduction to and survey of automated control systems. Describes conventional as well as state-of-the-art technology and techniques. Includes exercises.

TITLE: Automatic Control System Technology

AUTHOR(S): Daniel P. Sante

PUBLISHER: Prentice-Hall

PUBLICATION DATE: 1980

PRICE: $21.95 NO. OF PAGES: 250

DESCRIPTION:

Brings together most of the elements of previous study to present a codified look at the relationships between electrical/electronic and mechanical systems. Requires working knowledge of both areas.

TITLE: Automatic Control Systems

AUTHOR(S): Benjamin C. Kuo

PUBLISHER: Prentice-Hall

PUBLICATION DATE: 1982

PRICE: $31.95 NO. OF PAGES: 721

DESCRIPTION:

A comprehensive introduction to the theory and application of control systems with emphasis on conventional methods of analysis and design. Considers both classical and modern control theories independentely and, when possible, offers comparisions.

TITLE: Automatic Process Control

AUTHOR(S): P. N. Cheremisinoff and H. J. Perlis

PUBLISHER: Synapse

PUBLICATION DATE: 1981

PRICE: $46.95 NO. OF PAGES: 192

DESCRIPTION:

Complete volume on state-of-the-art progress in process control automation. Uniques approach segements elements of system for better understanding and quicker implementation.

TITLE: Modern Control Systems

AUTHOR(S): Richard C. Dorf

PUBLISHER: Addison-Wesley

PUBLICATION DATE: 1980

PRICE: $29.95 NO. OF PAGES: 512

DESCRIPTION:

Classic text for first course on control systems includes both theory and practice of conventional as well as digital systems. Numerous problems and exercises in various appropriate application areas.

TITLE: Electrical Control for Machines

AUTHOR(S): Kenneth B. Rexford

PUBLISHER: Delmar

PUBLICATION DATE: 1983

PRICE: NO. OF PAGES: 384

DESCRIPTION:

Practical instruction text focuses on conventional aspects of control. A non-mathematical, non-theoretical presentation.

TITLE: Power Control Electronics

AUTHOR(S): Boyd Larson

PUBLISHER: Prentice-Hall

PUBLICATION DATE: 1983

PRICE: $21.95 NO. OF PAGES: 176

DESCRIPTION:

A concise introductory industrial electronics textbook, emphasizes the control of great quantities of electricity. Basic circuits and troubleshooting waveforms shown.

TITLE: Control Systems: Theory, Troubleshooting, and Design

AUTHOR(S): Leslie M. Zoss

PUBLISHER: Synapse

PUBLICATION DATE: 1979

PRICE: $47.95 NO. OF PAGES: 174

DESCRIPTION:

A complete self-study guide to understanding process control systems. Bridges theoretical and practical information gap.

TITLE: Programming Microprocessor Interfaces for Control and Instrumentation

AUTHOR(S): Michael Andrews

PUBLISHER: Prentice-Hall

PUBLICATION DATE: 1982

PRICE: $14.00 NO. OF PAGES: 361

DESCRIPTION:

Interface book centering around 6809 microprocessor. First half of book develops hardware and software architecture. Second half develops fast software through modern programming techniques. Modest electronic background required.

TITLE: Digital Control Using Microprocessors

AUTHOR(S): Paul Katz-Technion

PUBLISHER: Prentice-Hall

PUBLICATION DATE: 1982

PRICE: $31.95 NO. OF PAGES: 293

DESCRIPTION:

A guide for designing control systems based on microprocessors blending advanced theory with sophisticated industrial experience. Real design problems complement novel and unpublished experiments.

TITLE: Microcomputers and Modern Control Engineering

AUTHOR(S): Douglas A. Cassell

PUBLISHER: Reston

PUBLICATION DATE: 1983

PRICE: $25.95 NO. OF PAGES: 590

DESCRIPTION:

Coverage of industrial systems and components is provided together with methods for implementing all types of micros in control problems. Well-organized text attends to details without losing the reader.

TITLE: Microprocessors for Measurement and Control

AUTHOR(S): David M. Auslander and Paul Sagues

PUBLISHER: Osborne/McGraw-Hill

PUBLICATION DATE: 1982

PRICE: $15.99 NO. OF PAGES: 310

DESCRIPTION:

Coverage of techniques for designing mechanical and process equipment control systems that use a microcomputer system. Actual case studies, plans and examples eliminate need for heavy computer background.

TITLE: BASIC Programming Solutions for Manufacturing

AUTHOR(S): J. Nicks

PUBLISHER: Society of Manufacturing Engineers

PUBLICATION DATE: 1982

PRICE: $32.00 NO. OF PAGES: 287

DESCRIPTION:

Twenty-two tested programs in BASIC to solve manufacturing related programs are included in this volume. Each chapter contains enough background information as to allow program customization in the generation of easily understood reports.

TITLE: Industrial Applications for Microprocessors

AUTHOR(S): A. D. Steckhahn and J. Den Otter

PUBLISHER: Reston

PUBLICATION DATE: 1982

PRICE: $24.95 NO. OF PAGES:

DESCRIPTION:

Assists reader in the practice of microprocessor controlled control systems. Various aspects of building, programming, and interfacing a processor for motor control are discussed. Text concentrates on M6800 processor but can be applied to others.

TITLE: Interface Technology for Computer-Controlled Manufacturing Processes

AUTHOR(S): Ulrich Rembold, Karl Armbrustar and Wolfgang Ulzmann

PUBLISHER: Marcel Dekker

PUBLICATION DATE: 1983

PRICE: $48.50 NO. OF PAGES: 376

DESCRIPTION:

This book spans the full range of information needed to effectively utilize computer interfaces in a vast array of automation applications.

TITLE: Designing Microprocessor-Based Instrumentation

AUTHOR(S): Joseph Carr

PUBLISHER: Reston

PUBLICATION DATE: 1982

PRICE: $22.95 NO. OF PAGES: 323

DESCRIPTION:

Primarily an interfacing book, this book introduces the techniques of designing electronic instrumentation with microprocessors. Presents the basics of microprocessor theory and operation as well as more detailed material on their interface potential.

INSTRUMENTATION

TITLE: Electronic Instrumentation and Measurement Techniques

AUTHOR(S): William D. Cooper

PUBLISHER: Prentice-Hall

PUBLICATION DATE: 1978

PRICE: $23.95 NO. OF PAGES: 448

DESCRIPTION:

A comprehensive overview of commonly used electrical and electronic instruments, their functional characteristics and principles of operation. Based on a mathematical presentation, the text illustrates practical measurement applications.

TITLE: Electronic Instrumentation

AUTHOR(S): Sol D. Prensky and Richard L. Castellucis

PUBLISHER: Prentice-Hall

PUBLICATION DATE: 1982

PRICE: $26.95 NO. OF PAGES: 480

DESCRIPTION:

Overview of electronic instrumentation devices and techniques. Includes material on conventional as well as digital instrumentation and contains many appropriate application examples.

TITLE: Electronic Instrumentation

AUTHOR(S): John Allocca and Al Stuart

PUBLISHER: Reston

PUBLICATION DATE: 1983

PRICE: $28.95 NO. OF PAGES: 400

DESCRIPTION:

Introduces wide range of electronic instrumentation devices and procedures for use. Includes conventional as well as state-of-the-art technology.

TITLE: Electronic Instrumentation and Measurements

AUTHOR(S): David A. Bell

PUBLISHER: Reston

PUBLICATION DATE: 1983

PRICE: $20.95 NO. OF PAGES: 600

DESCRIPTION:

Explains the operation, performance, characteristics and applications of electronic instruments and test equipment. Uses practical examples to demonstrate the range a measuring techniques currently in use.

TITLE: Introduction to Electronics and Instrumentation

AUTHOR(S): John W. McWane

PUBLISHER: Delmar/Breton

PUBLICATION DATE: 1981

PRICE: $25.95 NO. OF PAGES: 500

DESCRIPTION:

Basic concepts of electronics and instrumentation introduced enabling the understanding, construction and servicing of devices with little emphasis on mathematics. Direct application approach.

TITLE: Instrumentation: Transducers, Experimentation, and Application

AUTHOR(S): Roger W. Prewitt and Stephen W. Fardo

PUBLISHER: Bobbs-Merrill

PUBLICATION DATE: 1979

PRICE: $12.95 NO. OF FAGES: 224

DESCRIPTION:

A laboratory-oriented manual designed to provide in-depth understanding of instrumentation and measurement. Emphasis on basics allows customization of course around text.

TITLE: Electronic Instrumentation and Measurement Techniques

AUTHOR(S): William D. Cooper

PUBLISHER: Prentice-Hall

PUBLICATION DATE: 1978

PRICE: $23.95 NO. OF PAGES: 480

DESCRIPTION:

Introduction to electronic instrumentation and measurement techniques avoids calculus when possible and requires only fundamental background in electronics. Stresses hardware approach.

TITLE: Electronic Measurements

AUTHOR(S): Phil Kantrowitz, Gabriel Kousourou and Lawrence Zucker

PUBLISHER: Prentice-Hall

PUBLICATION DATE: 1979

PRICE: $22.94 NO. OF PAGES: 398

DESCRIPTION:

Thorough coverage of basic electrical and electronic measurements emphasizes practical techniques rather than details of instrument operation. Discusses theory and operation of instruments in the context of measurement.

TITLE: Process Level Instrumentation and Control

AUTHOR(S): Nicholas P. Cheremisinoff

PUBLISHER: Marcel Dekker

PUBLICATION DATE: 1981

PRICE: $34.75 NO. OF PAGES: 256

DESCRIPTION:

This book provides a comprehensive account of fluids-handling applications and a detailed study of solids-handling techniques, atypical for instrumentation texts of this type.

TITLE: Instrumentation

AUTHOR(S): Franklyn W. Kirk and Nicholas R. Rimbol

PUBLISHER: American Technical Publishers

PUBLICATION DATE: 1982

PRICE: $11.81 NO. OF PAGES: 376

DESCRIPTION:

An introduction to theory and application of control instruments, offering information on basic and operating principles of process controls in a variety of application areas.

TITLE: Analog Instrumentation Fundamentals

AUTHOR(S): Vincent F. Leonard

PUBLISHER: Synapse

PUBLICATION DATE: 1981

PRICE: $19.95 NO. OF PAGES: 318

DESCRIPTION:

Most detailed book available on functioning of basic analog instruments. Requiring no background in electronics, the book is still widely used in industry today.

TITLE: Circuit Design for Electronic Instrumentation

AUTHOR(S): Darold Wobschall

PUBLISHER: Synapse

PUBLICATION DATE: 1979

PRICE: $38.75 NO. OF PAGES: 390

DESCRIPTION:

Comprehensive "first source" for problems relating to electronic instrumentation circuit design. Plenty of illustrations and examples.

TITLE: Elements of Electronic Instrumentation and Measurement

AUTHOR(S): Joseph Carr

PUBLISHER: Reston

PUBLICATION DATE: 1979

PRICE: $19.95 NO. OF PAGES: 528

DESCRIPTION:

Basic overview of the technology of electronic instrumetation and the techniques of measurement. Discusses major categories of instrumentation and related examples.

TITLE: Oscilloscopes

AUTHOR(S): Stan Prentiss

PUBLISHER: Reston

PUBLICATION DATE: 1981

PRICE: $20.95 NO. OF PAGES: 240

DESCRIPTION:

Standard text on conventional subject but includes some up to the minute applications and devices.

TITLE: Pneumatic Instruments

AUTHOR(S): Dale R. Patrick and Steven R. Patrick

PUBLISHER: Bobbs-Merrill

PUBLICATION DATE: 1979

PRICE: $16.95 NO. OF PAGES: 240

DESCRIPTION:

Covers all the basics of pneumatic control instruments' theory, construction, alignment installation and operation. Volume 1 of a two-volume set.

TITLE: Electronic Instruments

AUTHOR(S): Dale R. Patrick

PUBLISHER: Bobbs-Merrill

PUBLICATION DATE: 1979

PRICE: $15.95 NO. OF PAGES: 192

DESCRIPTION:

Covers electronic instrumentation for industrial technicians unfamiliar with field. Discusses primary devices, measurement circuits, vacuum tube electronics and magnetics, among other topics.

TITLE: Optoelectronics

AUTHOR(S): Robert G. Seippel

PUBLISHER: Reston

PUBLICATION DATE: 1982

PRICE: $24.95 NO. OF PAGES: 368

DESCRIPTION:

Handbook and reference work designed to educate reader to the availability and functions of optoelectronic devices and systems. Includes detailed information on LEDs, LCDs, photodetectors, lasers, optical fibers and many others.

TITLE: Handbook of Information Display Devices

AUTHOR(S): Harry E. Thomas

PUBLISHER: Reston

PUBLICATION DATE: 1981

PRICE: $24.95 NO. OF PAGES:

DESCRIPTION:

A broad text covering all facets of information display technology from simple instrumentation to complex computer terminals. Includes tutorial explanations and direct hardware descriptions.

ADVANCES IN SHOP PRACTICE

TITLE: Advanced Machine Technology

AUTHOR(S): C. Thomas Olivo

PUBLISHER: Delmar-Breton

PUBLICATION DATE: 1982

PRICE: $29.95 NO. OF PAGES: 880

DESCRIPTION:

Special coverage on numerical control and Basic programming for 2, 3, 4, and 5 axes machining distinguishes this book from others of its type.

TITLE: Machine Shop Operations and Setups

AUTHOR(S): Orville D. Lascoe, Clyde A. Nelson and Harold W. Porter

PUBLISHER: American Technical Publishers

PUBLICATION DATE: 1982

PRICE: $14.21 NO. OF PAGES: 582

DESCRIPTION:

Provides basic introduction to conventional and advanced machining and hand tool operations. Includes sections on numerical control, EDM, ECM, USM and Magnetic Pulse forming, atypical topics for books of this nature.

TITLE: Manufacturing and Machine Tool Operations

AUTHOR(S): Herman W. Pollack

PUBLISHER: Prentice-Hall

PUBLICATION DATE: 1979

PRICE: $24.95 NO. OF PAGES: 637

DESCRIPTION:

Applied approach tc manufacturing process and machine tool operations includes expanded and updated information on EDM, NC and contains mathematical and non-mathematical exercises.

TITLE: Practice and Theory of Electrochemical Machining

AUTHOR(S): John F. Wilson

PUBLISHER: Krieger

PUBLICATION DATE: 1971

PRICE: $25.50 NO. OF PAGES: 266

DESCRIPTION:

Introductory volume to ECM processes.

TITLE: Electronic Techniques: Shop Practices and Construction

AUTHOR(S): Robert S. Villanucci, Alexander W. Avtgis and William F. Megow

PUBLISHER: Prentice-Hall

PUBLICATION DATE: 1981

PRICE: $23.95 NO. OF PAGES: 656

DESCRIPTION:

Hands-on approach to electronic shop practices of design, construction and measurement. New emphasis on printed circuit boards with projects. No prerequisite knowledge of electronics is necessary.

TITLE: Electronic Shop Fabrication: A Basic Course

AUTHOR(S): Robert S. Villanucci, Alexander W. Avtgis and William F. Megow

PUBLISHER: Prentice-Hall

PUBLICATION DATE: 1982

PRICE: $18.95 NO. OF PAGES: 240

DESCRIPTION:

A basic approach to the planning, fabrication and testing of electronic equipment. Easy to read and follow and requiring no background in electronics, this text eliminates need for sophisticated or expensive equipment.

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